Product Information

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Ultradur® B 2300 G6 HR Unc.
PBT (Polybutylene Terephthalate)

BASF The Chemical Company

Product Description

Ultradur B 2300 G6 HR Unc. is a hydrolysis resistant, 30% fiberglass reinforced PBT, exhibiting superior flow characteristics. Designed for improved latch strength in automotive connectors.

Applications

Ultradur B 2300 G6 HR Unc. was developed for thin walled automotive connectors designed to meet USCAR Class III requirements.

PHYSICAL	ISO Test Method	Property Value
Density, g/cm	1183	1.52
Viscosity Number, cm/g	1628	90
MECHANICAL	**ISO Test Method**	**Property Value**
Tensile stress at break, MPa	527	
23C		136
Tensile strain at break, %	527	
23C		3.0
Flexural Strength, MPa	178	
23C		198
Flexural Modulus, MPa	178	
23C		8,000
IMPACT	**ISO Test Method**	**Property Value**
Charpy Notched, kJ/m^2	179	
23C		12
Charpy Unnotched, kJ/m^2	179	
23C		73
THERMAL	**ISO Test Method**	**Property Value**
Melting Point, C	3146	223
Coef. of Linear Thermal Expansion, Parallel, mm/mm C		0.17 X10-4
Coef. of Linear Thermal Expansion, Normal, mm/mm C		1.2 X10-4
ELECTRICAL	**ISO Test Method**	**Property Value**
Comparative Tracking Index	IEC 60112	550

Processing Guidelines

Material Handling
Max. Water content: 0.04%
To ensure optimum part performance, this product must be dried prior to molding and maintained at a moisture level of less than 0.04%. Dehumidifying or desiccant dryers operating at 100-120 degC (212-248 degF) at 4 hours drying time is recommended. Further information concerning safe handling procedures can be obtained from the Material Safety Data Sheet. Alternatively, please contact your BASF representative.

Typical Profile
Melt Temperature 250-275 degC (482-527 degF)

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Mold Temperature 40-70 degC (105-158 degF)
Injection and Packing Pressure 35-125 bar (500-1500 psi)

Mold Temperatures
This product can be processed over mold temperatures of 60-100 degC (140-212 degF).

Pressures
Injection pressure controls the filling of the part and should be applied for 90% of ram travel. Packing pressure affects the final part and can be used effectively in controlling sink marks and shrinkage. It should be applied and maintained until the gate area is completely frozen off.

Back pressure can be utilized to provide uniform melt consistency and reduce trapped air and gas. A maximum of 10 bar (145 psi) is recommended due to the risk of excessive shear.

Fill Rate
Fast fill rates are recommended to ensure uniform melt delivery to the cavity and prevent premature freezing. Surface appearance is directly affected by injection rate.

Note